



— Rick Roach, AP

CURIOUS VISITORS yesterday tour crop circles found recently in a wheat field in Rockville, Calif. The farm's owner said he believes they were created by people.

The Toronto Sun, Friday July 4, 2003

Crop circles appeared overnight in farm

ROCKVILLE, Calif. (AP) — Wheat farmer Larry Balestra might have trouble getting a great yield, with the crop circles all over his field.

Balestra, of Suisun City, says he found more than a dozen large flattened circles and shapes in his wheat field Saturday — one measuring more than 42 metres in diameter.

"What the heck?" Balestra said he muttered to himself upon walking into the field and making the discovery. He pulled out his cellphone and told his wife, "You won't believe what I'm looking at."

Stalks flattened

Balestra says the wheat stalks were curiously bent flat to the ground and the crop circles stretched out longer than a football field, forming various shapes and symmetrical designs.

"The harvester can't pick this up," he told *The Fairfield Daily Republic* as he held up a broken stalk. "This is weird."

UFO idea dismissed

Crop circles first drew widespread attention in the 1980s, when they appeared in fields around the world. Their allegedly supernatural origins were quickly thrown into doubt, however, when people began admitting to creating them.

Balestra dismissed the notion that UFOs might be involved.

"I guess some people have too much time on their hands," he said.

Farm workers that live in a house near the field told Balestra they neither saw nor heard anything out of the ordinary on the field in question.

Most UFO sightings are explainable,
says expert, but there are some ...



See
P.5

UFOs BLAMED FOR OUTAGE IN 1965

By SIRI AGRELL

As government officials and industry experts in Canada and the United States attempt to pinpoint the cause of Thursday's massive power blackout, there is one possibility that has escaped investigation: a close encounter of the third kind.

In the days following North America's major blackout on Nov. 9, 1965, reports of UFO sightings down the Eastern seaboard convinced some people visitors from outer space had flicked an intergalactic off-switch.

The blackout 38 years ago was similar to last week's outage in many ways. The "Great Northeast Blackout" of 1965 began at 5:16 p.m., near the end of a normal workday. The power grid broke up four seconds after the initial disturbance. New York, Ontario, most of New England and parts of New Jersey and Pennsylvania went black within five minutes, leaving 30 million people without electricity for as long as 13 hours.

In his 1979 book, *UFO Canada*, Yurko Bondarchuk writes that some believers went so far as to accuse Prime Minister Lester B. Pearson for covering up alien involvement in the 1965 blackout.

"To shift attention from the UFO explanation, the 'broken relay' story was invented," Mr. Bondarchuk quotes U.S. ufologist Donald Keyhoe as saying. "Since this could be construed as blaming Canada, the prime minister must have been convinced it was best for both countries not to disclose the true situation."

The author explained that UFOs can "create sudden power surges in transmission lines as the craft flies overhead." In theory, he wrote, "these power surges could produce blackouts of massive proportions."

The blackout of 1965 was traced to a plant near Niagara Falls, although Mr. Bondarchuk maintained there was evidence UFOs can cause power failures, although he said it "may only be a side effect."

National Post

A brief history of crop circles and the hoax theory

VICTORIA STEVENS
STAFF WRITER

AVEBURY, ENGLAND—There is some evidence to suggest that crop circles have been appearing in England for centuries, while simple circles have been documented in modern times since the 1970s. In those days, theories put forward to explain them included freak whirlwinds, plasma vortexes and UFO landing sites.

Since the early 1990s, however, the phenomenon has grabbed world attention, as the formations evolved into enormous, increasingly mathematically complex and perfectly executed shapes appearing in fields, often near the sacred sites of Wiltshire in southern England.

About 10,000 crop circles have been documented worldwide since records began to be kept in the '70s. Not including this year's formations, England tops the list with around 1,784, followed by the U.S. with 228, Canada with 135, Germany with 105, Australia with 71, the Netherlands with 62, Hungary with 23 and Japan with 19, most of them appearing in rice paddies. Dozens of other countries on every continent have also reported small numbers of simple formations.

The largest to date, a perfectly formed spiral formation 244 metres in diameter, composed of 409 circles covering almost the entire field, appeared overnight on a rainy night at Milk Hill in Wiltshire Aug. 12, 2001. Researchers entering the glyph early the next morning found no muddy boot prints or any other sign of a human presence. Even the Circlemakers, a group of hoaxers, issued a statement questioning how such a massive formation could have been laid down in one night.

Frequent reports of strange balls of light (some captured on video) and sounds prior to the appearance of formations added fuel to the argument that they were being created by some as yet unknown, either natural or supernatural force. Other odd occurrences have

been reported, like electronic equipment failing to work inside the circles, then functioning normally once taken out and abnormal magnetic and radiation readings inside fresh circles.

Last year's movie *Signs*, starring Mel Gibson, while universally scorned by serious crop circle researchers, nevertheless renewed interest in crop circles after years of the phenomenon being dismissed in the media as a sophisticated hoax, following the announcement in 1991 by two retired Englishmen, Doug Bower and Dave Chorley (known now simply as Doug and Dave), that they were responsible for all the crop circles in England since 1978, starting as a joke to make people think UFOs were landing.

They demonstrated their technique for the cameras with a 1.2-metre board attached to a rope they hung around their necks. One held one end of a string in the centre to determine the radius while the other held the other end and stomped down the plants with the board. Newspapers and TV stations around the world trumpeted the solution to the crop circle mystery.

Since Doug and Dave's "retirement" in 1991, another generation of hoaxers has appeared. The only group to go public calls itself the Circlemakers (www.circlemakers.com). They have not taken credit for any one glyph in particular, except the commercial formations they make for corporations like Mitsubishi (see main story for the farmer's account of that construction) and Weetabix and a couple of television programs, saying that revealing which circles they've created would ruin the mystery and appreciation for what they call their "land art." To date, they have not responded to numerous challenges to reproduce any of the complex formations in front of witnesses. Interestingly, one of them has stated that he has seen some of the anomalous lights often reported in crop circles.

For those who think it's all just

a big hoax, consider the following:

★ During the growing season, the fields where these glyphs regularly appear are under virtually 24-hour surveillance by farmers, croppies and researchers. In 1994, the National Farmers Union posted a reward of several thousand pounds for information leading to the prosecution of the vandals damaging their crops. No one has ever claimed the reward. Given that about 100 formations a season (about 20 a month) have been appearing for over a decade, how is it that no one has ever been caught making one?

★ The sophisticated geometry mathematicians have found in circles and their flawless execution in very short time periods, not to mention the quantity and sheer size of many of them, begs the question of who these alleged hoaxers are, how many of them there must be to accomplish what they do and why have they spent almost every night each summer for years tramping about dark fields for no money and no recognition? Where do they practise or are they so quick, quiet and well-organized that they can put down huge, complex formations with no mistakes first time in the dark, with no one seeing them? What about the formations being created all over the world at the same time? Is there a large, well-organized international hoaxing conspiracy?

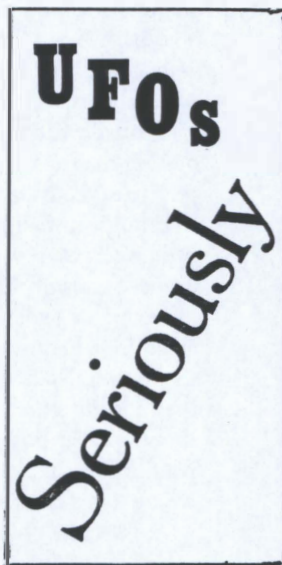
★ If most of the formations are man-made, how do the perpetrators manage to create the weaving and layering which has been observed many times and never yet recreated in any demonstration pattern? How are so many examples of curved but unbroken stems and bent and swollen plant nodes accounted for when this is impossible to achieve by hand? What of the discoveries of W.C. Levengood (a U.S. scientist who has studied crop circle plants for 10 years) and the biological changes found at microscopic levels, yet never duplicated by mechanically flattened tests?

BY SUSAN MCCLELLAND
in St. Paul

To the first-time tourist, St. Paul, Alta., could easily pass for a set from *The X-Files*. The billboard at the edge of the small farming community about 200 km northeast of Edmonton welcomes visitors to the world's first UFO landing pad—a circular cement deck attached to the chamber of commerce. The chamber itself looks like a spaceship. Businesses with names like Mama's Flying Saucer Pizza & Breakfast and the Galaxy Motel line the main street. Even the town's mascot, Zoot, is an extraterrestrial that looks like a large-eyed blue bug. The biggest surprise, though, may be just how long it's been since the townsfolk put out the alien welcome mat. "The landing pad was built during Canada's Centennial," explains Mayor John Trefanenko. "People wanted to create something that would be recognized around the world. Over the years, we kept building on that theme."

And build they have. UFO fervour has spawned an industry in the town of 5,000 that brings in some 30,000 visitors a year. Along the way, some townsfolk have developed otherworldly areas of interest. Fernand Belzil, for instance, a semi-retired cattle rancher, is one of Canada's few experts on a grisly type of animal mutilation in which all the blood has been drained and certain organs surgically removed. The lack of footprints surrounding the carcasses has led some to rule out natural predators and practitioners of satanic rituals. So that leaves, perhaps, creatures from outer space? "It's as if the body is dropped from the sky," says Belzil, who has investigated more than 60 mutilations, predominantly of cattle, in Western Canada. "Six years ago, when the chamber got a call asking if they knew someone who could check out an animal, I went thinking no way. It wasn't killed by aliens. Now, well, I'm not going to come right out and say there are UFOs. But like a lot of people in town, I am a little more accepting of strange phenomena."

No joke, folks: turns out the residents of St. Paul aren't alone in believing the truth is out there. A 1996 Angus Reid poll found 70 per cent of Canadians believe intelligent life exists elsewhere in the universe, and just over half of those sampled said they thought the planet had already been visited by extraterrestrials. Throughout the country, numerous UFO groups monitor alien encounters. They estimate as many as 10 per cent of Canadians have seen unidentified flying objects—and reports of sightings are as numerous as ever. Last year, more than 500 people saw 263 UFOs—up 10



per cent from 1989. "Am I surprised with the numbers of people who have these experiences?" says Errol Bruce-Knapp, host of *Strange Days*. . . Indeed, a radio program about UFOs on CFRB in Toronto. "No. From the moment our show begins, the phone lines are busy."

OK, but it's one thing to fess up to a little-green-men fixation when you're talking to an anonymous pollster or on the disembodied world of radio. What do you say to non-believers, who state categorically that flying saucers and creatures that drive them—and then abduct earthlings—do not, *cannot*, exist? These people cite reams of scientific data to prove their argument—and question the soundness of mind of the E.T. crowd. Groups like Heaven's Gate in San Diego and Quebec's Solar Temple, whose devotees committed suicide in the hopes their spirits would be taken by aliens, bolster the skeptics' contentions that only those on the lunatic fringe believe in UFOs.

Some reasonable souls, however, are troubled by the rigid orthodoxy of the two opposing camps. "The problem has been that you have the hard-nosed skeptics, who believe nothing, and the full believers, who see a light in the sky and are convinced it's a flying saucer," says Palmiro Campagna, an electromagnetics engineer and administrator with the department of national defence in Ottawa and author of 1997's *The UFO Files: The Canadian Connection Exposed*. "What is needed are investigators who take neither view, but just look at the facts." As it happens, an emerging breed of serious scholars is daring to do just that. And

Is there a middle ground between skepticism and belief?

if, in the process, they answer the age-old question of whether humans are alone in the universe, so much the better.

One world-renowned figure who surprised his scientific colleagues by trying to take an open-minded look at the world of UFOs is Dr. John Mack, a professor of psychiatry at Harvard medical school. Mack, an author of more than 150 scholarly articles, worked over the past decade with more than 100 people who claimed to have been abducted by aliens. He acknowledges he, too, was skeptical at first. "The psychiatrist in me is trained to distinguish mental states like when someone is hallucinating, having some kind of psychotic episode or confusion around a dream," he told *Maclean's*. "But the clinician in me said these people were talking about these encounters the way people talk about what is really happening to them."

In 1994, Mack, who won a Pulitzer Prize for his 1976 biography of T. E. Lawrence, published *Abduction: Human Encounters with Aliens*. The book, which relates the experiences of 13 self-described abductees, went on to become a best-seller—and to irritate Harvard officials. They questioned his research methods, forcing Mack to vigorously defend his work before a university review board. The board accepted his methodology, but not before his reputation was sullied in a number of major U.S. newspapers.

People in high places, though, have long been curious about extraterrestrials. In the 1950s, alongside civilian groups, the department of national defence and the RCMP investigated reported sightings of UFOs. Ottawa also funded the work of department of transport engineer Wilbert Smith, who was trying to figure out how they made it to Earth. "Smith was studying anti-gravity propulsion—if something was travelling through the stars, how would it be able to manipulate gravity," explains Campagna.



The research grant was small and Smith was soon forced to wrap it up. Then in 1953, the federal government supported another one of his initiatives, providing Smith with a building at Shirleys Bay near Ottawa where he was developing an electronic device that could identify flying objects. Several months later, Smith reported his first detection of an "anomalous disturbance" to the media. But the resulting publicity spooked the federal agencies supporting Smith's work—they cut off his funding, and the engineer was forced to close shop.

Still, Defence continued to collect UFO reports until 1968, when it handed the task over to the National Research Council; after multiple changes at the NRC, it, too, got out of the UFO business. Since 1996, the task of investigating sightings has been left to nonprofit groups. Between 1989 and 2000, they checked into nearly 3,000 UFO reports. Most could be explained as aircraft or natural phenomena, including stars or meteors. But according to Chris Rutkowski, an astronomer who heads up one of the volunteer organizations, Ufology Research of Manitoba, about five per cent can't be accounted for. This includes one outside Whitehorse, where in 1997 an object shaped like a satellite dish flew at tree-top level as it followed a mother and her three kids down the Klondike highway. "I know how unlikely it is for aliens to reach Earth," says Rutkowski. "But there is a certain percentage of cases that just can't be explained."

One of Canada's most famous—and still unexplained—incidents took place in Nova Scotia, on Oct. 4, 1967. Hundreds witnessed an unidentified object fly erratically 300 km southwest along the coast from Dartmouth until it eventually crashed into Shag Harbour. "I saw this strange orange light tracing the shoreline," recalls Chris Styles, who was 12 at the time. "My first reaction was fear. I had never seen anything like this before."

And seeing, as they say, is believing. Styles and writer Don Ledger co-authored the 2001 book *Dark Object: The World's Only Government-Documented UFO Crash*. In it, they interviewed RCMP and military officers who were involved in the official search for the UFO. Some recalled bringing odd-looking debris, including a yellow foam-like substance thought to be from the wreck, to the surface of the ocean. The authors discovered that RCMP records classified the incident as a UFO. "I know many people involved want an investigation," says Styles. "UFOs are a worldwide phenomenon and these few cases that are well corroborated should be looked into."

Others say they've had encounters of a much closer kind. Larry, a successful, 50-year-old Ontario businessman, appears to lead a normal life in every respect except one: from the age of 6, he's been visited by aliens. "I realized my experiences were abductions when I was in my late 30s after I watched a TV show about abductees," he says. "Until then, I didn't have a clue what it was. I just kept it all to myself. As it turned out, what I was experiencing was textbook abduction."

And, yes, there is such a textbook—or at least a fairly standard abduction scenario. One was spelled out in the 1987 book *Communion*, in which American writer Whitley Strieber earnestly recounted his own abduction ordeals. The abductee is taken every few months, usually at night; feels paralyzed; has visions of bright lights, and afterward has a sense of lost time. Some recount having had sexual encounters with their abductors, while other

abductees feel they've been prodded and poked with strange objects. In Larry's case, he frequently awakens the next day with unexplained nosebleeds and piercings on his body. He admits he has no idea why this happens to him.

Harvard's Mack has his own theories about what's going on. He maintains, for instance, that much of the UFO experience occurs during an altered state of consciousness. "Through near-death experiences or deep meditation, the psyche can be separated from the body and can connect to deeper forces of the universe," he says. Although some may liken this to a spiritual experience, abductions, notes Mack, are unique because they appear to cross from one dimension to another. "What is distinct about UFOs and aliens is that they appear to go beyond a spirit that has no substance and show up as a physical body in the material world," he explains. "This is a problem for our Western mind-set because we are so based on material evidence. If it comes from somewhere else, it is hard for us to accept."

Canadian author John Robert Colombo, who has written three books on UFOs, doesn't doubt that the experiences are genuine—that is, in the person's mind. He points to the work of Laurentian University psychologist Michael Persinger, who has refitted a motorcycle helmet to expose the wearers' brains to a rhythmic bombardment of low-intensity electromagnetic waves. Although the gadget was developed to help people suffering from ailments such as depression and chronic pain, Persinger discovered that the wearers also have unusual visual sensations, like seeing angels. He suggests these experiences may be nothing more than a neurological accident. Epileptics, for instance, tend to have mystical experiences during seizures. What people make of the presence before them, Persinger says, depends on their own beliefs. "Some people may have visions of Mary," adds Colombo. "Others might say it is an alien."

Don't try to tell that to Dorothy Izatt. The 78-year-old great-grandmother from Richmond, B.C., claims to have seen just about everything there is out there. Izatt has met numerous aliens—some are little grey creatures, others are fair-skinned blonds—since she first saw a spaceship in 1974. She's also made more than 500 home movies capturing strange phenomena, and photography experts who have viewed the films say they haven't been doctored. "She happens to have a highly sensitive antenna," explains Lee Pulos, a Vancouver-based clinical psychologist who knows Izatt. "She is still rooted in this reality, but somehow she is able to tune into these extraordinary frequencies that most of us don't even know exist."

Like many others keeping the UFO faith, Izatt thinks extraterrestrials are trying to tell us something: they're deeply concerned about mankind's future. "They're letting us know that we're not evolving," she says. "We have wars and then we forget so we have another war. We were put here to be guardians and keepers of the Earth, to look after it so that it will not die. So far we have failed." No argument there. But to true believers in visitors from the beyond, there's at least comfort in knowing they'll try, try again.

With John Betts in Nelson, B.C.

Maclean's/August 13, 2001

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Watch the skies and harbours

Halifax UFO conference attracts skeptics and believers

BY JENNIFER ROBINSON

HALIFAX • Blame Ed Wood's spinning pie plates, the Raelians's obsession with cloning and theme parks, or maybe Erich von Daniken's premise that ancient gods were travellers from outer space. Pop culture and crackpots have hijacked the scientific study of UFOs, turning it into a running joke, says UFO researcher Chris Styles.

Best known for his work on the 1967 case of a suspected UFO crash in Shag Harbour, N.S., Styles was expected to be among five experts speaking this weekend in Halifax at an international symposium on unidentified flying objects. For him, proof that UFOs exist can be found in an unlikely place: Canadian government documents. Through federal access requests, he's found detailed reports from RCMP officers and Defence Department officials chronicling decades of strange sightings in our skies.

"A lot of what goes on nowadays really isn't ufology, it's what I call alienology," says Styles, co-author of *Dark Object*, a book about the Shag Harbour incident. "Everybody's already got their answers and they're just trying to make the data fit the answers they want to believe in. I don't know what UFOs are and I think that's where you have to start from."

The official reports about what happened at Shag Harbour offer detailed accounts from police officers and an Air Canada pilot who witnessed a strange object in the sky. The reports suggest that a large object crashed into the waters off southwestern Nova Scotia on Oct. 4, 1967, leaving behind a trail of yellow foam and bewildered fishermen who sailed to the area to search for survivors. Though navy divers mounted an extensive search and RCMP officers talked to many witnesses, nothing was found.

"If there was a police investigation and follow-ups and reports filed to defence

headquarters, you know there was probably something there," says Styles, who was 12 when he saw the orange object above his home in Dartmouth, N.S., before it crashed into the ocean. But he says scientists, pilots and other people in high-ranking positions are afraid to speak out because they don't want to be "tarred with the kook brush."

Scholars and the media, for example, have heaped scorn on popular authors such as Von Daniken, a former Swiss hotelier who has sold millions of books suggesting aliens, not humans, populated Earth's ancient civilizations.

In Hollywood, filmmakers continue to churn out conspiracy-theory movies about secret agents dressed in black chasing little green men. Cheap special effects have heightened the absurdity, compliments of B-movie directors like Ed Wood.

The Raelians, a Quebec-based group that insists life on Earth was started by

PEOPLE ARE AFRAID IF THEY SPEAK OUT THEY'LL BE 'TARRED WITH THE KOOK BRUSH'

aliens, have become international pariahs for their fantastic claims of successfully cloning humans.

Though physical evidence, such as a recovered aircraft, has remained elusive, studies show a growing number of people believe there is life elsewhere in the universe — but they're not so sure aliens are visiting our planet.

"In the 1950s, it was a simpler scenario: You either believed or you didn't believe," Styles says. "But nowadays many of the harshest critics say, 'Yes there's life, it just hasn't been here.' The differences are more subtle. The landscape is more confused."

Michael MacDonald, a Nova Scotia-based filmmaker and co-creator of the symposium, admits there's a lot of crackpot ideas out there.

"But you just can't ignore all the information, all the reports, all the sightings," he says. "When people say to me, 'Prove to me that they exist,' I just say to them, 'Prove to me they don't.'"

MacDonald, who is filming the symposium for a documentary, says Canada has a wealth of flying saucer information it can share with the world. Unlike U.S. officials, who "hoard and hide" their UFO reports, Ottawa shuffles information from department to department, unsure of where to file it, he says. "Rather than have a 'secret agenda,' they just pass it on."

As the local UFO expert in Halifax, Styles gets his share of calls and e-mails about strange sightings of dancing, zooming lights appearing in the heavens. He estimates that 90% of sightings are mistakes. The bright lights of the International Space Station passing overhead, for example, regularly trips up casual observers.

Convincing people they haven't seen a UFO is sometimes next to impossible, Styles says. "I think they want to have a little of the magic and be a part of it," he says.

"I hope we're not [alone in the universe]. If we are alone, I think that tells us something, too. We should be behaving a lot better if we're that rare and precious."

The Canadian Press

Metro OCTOBER 9, 2003

Space — like a soccer ball?

LONDON Scientists said yesterday the universe could be spherical and patched together like a soccer ball — and it may not be infinite.

Their astronomical data suggests the universe is finite and made of curved pentagons joined together into a ball.

In research reported in the science journal *Nature* yesterday, the scientists said data from NASA's Wilkinson Microwave Anisotropy Probe, which maps background radiation left over from the Big Bang, is not consistent with an infinite universe.

Jeffrey Weeks, a MacArthur Fellow based in Canton, New York, and researchers from the University of Paris and Observatory of Paris are the authors of the research.

Reuters

E.T., CHECK THE HISTORY BOOKS

Nearly every civilization since the beginning of time has told tales of visitors from space. The ruins of Tiwanacu in Bolivia, for instance, reveal a city fortified by walls made of blocks weighing up to 100 tonnes each. According to some writers, pre-Incan folklore maintained bearded white giants from the stars we now call the Pleiades built the walls in just one night. In the Canaima region of Venezuela, some local indigenous people point to the tabletop mountains, known as *tepuis*, they believe once ascended to heaven; the mountains were cut off, trapping some aliens on Earth, and their descendants still walk among us.

Then there's an Egyptian creation myth about the age of Tep-Zepi. Long before the pyramids were built (some today believe that they, too, were built with help from the great beyond), sky gods in flying boats came to Earth and raised the land up from under mud and water. And sand paintings by the Dogon of Mali in West Africa reflect the tribe's beliefs

that they were once visited by extraterrestrials from the star *sigu tolo*, known today as Sirius. The evidence: although the Dogon had no telescopes or other astronomical equipment, they possessed arcane knowledge about some aspects of the stars and planets.

In Canada, the first documented sighting of what is commonly considered a UFO was in the winter of 1792. David Thompson, a Hudson's Bay Co. explorer, and a companion were camped out in an isolated area of what is now Thicket Portage, Man., when they saw a large "mass of jelly" fly through the air and crash to Earth. As Thompson noted in his journal, they failed to find it. But several days later, he reported a second, similar sighting. Judging by the thousands of reported sightings since, the skies over Canada are a busy place.

S.M.

According to folklore, outer spacemen fortified the city of Tiwanacu in Bolivia with blocks weighing 100 tonnes each

Maclean's/August 13, 2001

TUESDAY, AUGUST 5, 2003 Metro

Ice towers could hold key to life on Mars: geologist

Giant ice towers that formed next to steaming volcanic vents in the freezing atmosphere of Mars may be the best place to look for life on the red planet, an Australian geologist said yesterday.

Nick Hoffman of the University of Melbourne said the latest images taken by the Mars Odyssey orbiter had revealed curious hotspots in the Hellas Basin that could be similar to ice towers in Antarctica, where microbial life forms live on chemical energy.

These hotspots, he told Reuters, could prove a better place to find signs of life than gullies that some spec-

ulate may have been gouged by running water.

"I don't personally believe that that (finding life) is a credible possibility, but nonetheless, if you are going to find life on Mars, this is probably the place it will be," he said.

Hoffman has worked on potential Mars ice towers with Professor Phil Kyle of the New Mexico Institute of Mining and Technology in the United States.

Their research, based on NASA imagery and the study of the Mount Erebus volcano on Antarctica's Ross Island, was presented at the 6th international Mars conference in Pasade-

na, Calif., in July.

On Ross Island, steam from volcanic vents is converted directly into ice as it touches the frigid air, building tall, hollow chimneys where a microclimate allows bacteria to live.

"On Mars, similar structures could be doubly valuable for potential Mars microbes," Hoffman said.

NASA's latest Mars mission, carrying two rovers to probe for signs that conditions on Mars once favoured life, will not go anywhere near Hellas Basin, a deep impact crater about the size of Australia in the southern hemisphere of the planet.

Reuters

THE THORNHILL POST OCTOBER 2003

Haunted houses aplenty

It was a dark and stormy night. At the Mulholland homestead the kids were playing in the yard, when an apparition appeared before them. It was their father. The only problem, Mr. Mulholland died at sea weeks earlier. They say, the Mulholland clan still walks the grounds of their Bathurst acreage.

A young professional couple hears the sound of a small person running up the stairs of their home. It is repeated again days later.

Meeting a previous homeowner at a party, the couple asks what happened in the home only to learn of a teenager's tragic death. Did she like to play on the stairs, they asked. Yes, he answered.



▲ Terrifying tales

NATIONAL POST, SATURDAY, AUGUST 9, 2003

Himalayan climbers leave to track elusive, fabled yeti

TOKYO • A Japanese expedition equipped with sensor-activated cameras and led by an amateur cryptozoologist heads to the Himalayas tomorrow hoping to track down the elusive yeti. The seven climbers will spend six weeks in western Nepal. Leader Yoshiteru Takahashi says he found humanlike footprints made by a "rather large animal" in 1994.

NATIONAL POST, MONDAY, SEPTEMBER 22, 2003

Galileo ends 14-year mission with plunge into Jupiter

PASADENA, CALIF. • NASA's ageing Galileo spacecraft deliberately plunged into Jupiter's turbulent atmosphere yesterday, bringing a fiery conclusion to a 14-year, US\$1.5-billion exploration of the solar system's largest planet and its moons. The unmanned spacecraft was torn apart and vapourized by the heat and friction of its fall through the clouds.

Haunted hangouts

WEDNESDAY, SEPTEMBER 24, 2003

Metro

From haunted hotels to ghost sightings, Arizona is full of spirit — the supernatural kind.

Jerome is Arizona's most well-known ghost town, but not because of a high level of paranormal activity. With the official closing of the last mine in 1953, Jerome's population dwindled down to between 50 and 100 residents, and it was listed as America's largest ghost town during the late 1950s. But, beginning in the 1960s, Jerome came back to life with museums, art galleries, antique shops and restaurants, and the town is known today as one of Arizona's most unique towns.

While Jerome is no longer a ghost town, several of the town's hotels have not been able to escape their haunted past. The Jerome Grand Hotel opened in 1927 as the United Verde Hospital, then lay dormant after closing in 1950 until an extensive renovation converted it to a hotel in 1996. The building, which offers breathtaking views and quaint accommodations, had a reputation for being haunted as ghostly sounds of coughing, moaning, and laboured breathing could be heard throughout the wards.

Bisbee is another Arizona mining town with a ghoulish reputation. Once known as the best drinking and entertainment venue in the territory, Bisbee still boasts many of the fine commercial buildings and Victorian houses that sprouted up during the copper mine's boom years.

Due to its fine climate and scenery, Bisbee didn't run the risk of becoming a ghost town when the mine closed up. Guests at the Oliver House, a bed and breakfast, can have a taste of the paranormal, since the inn can boast five different ghosts. The house was built in 1909 by Edith Ann Oliver, the wife of a local mine official. It was used originally as mine offices and later became a boarding house before its present incarnation as an inn. According to former guests, footsteps can be heard roaming the hallways at night and the sound of water running in pipes that don't exist can often be heard. Most of the strange activity occurs around Room 13, where a man was killed in the

hallway outside the room in 1920.

Further perpetuating the link between mining towns and haunted spirits, Oatman is no stranger to the paranormal. The Oatman Hotel, sits on the main street of this former mining metropolis, which is known today for its charming nature and wild burros roaming the streets. According to the stories, the mischievous ghosts in the hotel are responsible for leaving human outlines on beds, eerie voices and haunting a room that once was home to a miner.

In Flagstaff, one the town's oldest properties, the Monte Vista Hotel, hosts a number of otherworldly guests and staff members. The hotel opened on New Year's Day in 1927 and was a hot spot for Hollywood celebrities starring in westerns filmed in that area during the 1940s and 1950s. While Bing Crosby, Jane Russell and Gary Cooper are some of the hotel's most well-known guests, one of the infamous guests is a phantom bell-boy who knocks on doors and then vanishes. Dozens of guests have encountered this phantom over the years, and he is often joined by the ghost of a woman.

Another ghost, that of a former bank robber, is said to haunt the saloon.

Prescott was the first territorial capital of Arizona and at least one of the state's resident ghosts is still there. The ghost of Abby Byr and her cat, Noble, reportedly haunt Room 16 at the Hotel Vendome.

If a haunted hotel seems a bit eerie, Arizona hosts several haunted events in October to give visitors a taste of the spirit that lives throughout the state. Nighttime tours of the Yuma Territorial Prison State Historic Park give a glimpse into the past and into the lives of the people that once spent time there. Their spirits still linger in the "solitary" confinement area.

The 6th Annual Ghostwalk in Prescott is a guided tour of the Sharlot Hall Museum, featuring costumed storytellers relating eerie tales of Prescott's spirits past and present.

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DEATH RAYS FROM SPACE CAUSED MASS EXTINCTION, SCIENTISTS SAY

BY RANDY BOSWELL

OTTAWA • A Canadian geologist tracking the extinction of prehistoric creatures called trilobites has given a team of U.S. scientists evidence for a startling new theory that death rays from outer space killed off most life on Earth about 450 million years ago.

Scientists believe there have been five mass extinctions in Earth's history, including the one 65 million years ago that killed the dinosaurs, and they are trying to figure out why these catastrophic events occur.

The team of astrophysicists and paleontologists from the University of Kansas suggests a gamma-ray burst from a collapsing star flooded the Earth with radiation 443 million years ago. They say that triggered a chain of events, including the destruction of the ozone layer, and brought an abrupt end to most forms of life in the Ordovician geological era.

The signature species of that era is a sea creature called the trilobite.

University of Calgary geologist Brian Chatterton — after years of field work in the 1980s in the Mackenzie Mountains of north-western Canada — found certain kinds of trilobites disappeared suddenly, while others persisted.

He determined that species inhabiting upper levels of the sea were the first to die out.

That discovery is central to the gamma-ray theory proposed by the University of Kansas team, published in *The New Scientist*. They say the pattern of trilobite extinction Mr. Chatterton identified precisely matches the expected effects of a gamma-ray burst close to Earth.

Gamma-ray bursts have been described as the most powerful explosions known. Giant stars collapse into black holes as they die out, sending out intense pulses of gamma radiation that can be detected clear across the universe for about 10 seconds.

Astronomers have so far recorded only harmless bursts coming from distant galaxies. But one occurring in the vicinity of Earth could be catastrophic. The atmosphere would cushion much of the blow, but the planet's nitrogen and oxygen molecules could be "ripped apart," according to the study's lead astrophysicist, Adrian Melott.

CanWest News Service

The Toronto Sun, August 25, 2003

Read me on Mars: Sci-fi author

PASADENA, Calif. (AP) — Science fiction author Ray Bradbury celebrated his 83rd birthday

with this wish:

One night, 100 years from now, a youngster will stay up late reading *The Martian Chronicles* with a flashlight under his blanket — on the Red Planet.

"That's the dream I have and that's the reason I'm here," the author of the 1950 classic said during a party organized Saturday by space exploration advocacy group The Planetary Society.

Bradbury said he developed his love for Mars in high school, when he read the Mars-themed books by Edgar Rice Burroughs, now remembered for creating Tarzan.

The discovery of a singing black hole may be the key to understanding the growth of galaxy clusters, the largest, most massive objects in the universe, astronomers say.

U.S. astronomers discover a black hole that has sung 'the lowest note in the universe' for two billion years

Symphony in B-flat

BY DENNIS OVERBYE

Astronomers say they have heard the sound of a black hole singing. What it is singing, and perhaps has been singing for more than two billion years, they say, is B-flat — a B-flat 57 octaves lower than middle C.

The "notes" appear as pressure waves roiling and spreading as a result of outbursts from a supermassive black hole through a hot, thin gas that fills the Perseus cluster of galaxies, 250 million light-years distant. They are 30,000 light-years across and have a period of oscillation of 10 million years. By comparison, the deepest, lowest notes that humans can hear have a period of about one-twentieth of a second.

The black hole is playing "the lowest note in the universe," said Dr. Andrew Fabian, an X-ray astronomer at the Institute for Astronomy at Cambridge University in England.

Fabian was the leader on an international team that used NASA's Chandra X-ray Observatory to detect the black hole's notes as ripples of luminosity in the X-ray glow of the cluster. The discovery, announced at NASA headquarters in Washington and in a paper in the journal *Monthly Notices of Royal Astronomical Society*, might help solve long-standing problems regarding the structure of galaxy clusters, the

largest, most massive objects in the universe, and the evolution of galaxies within them, astronomers said.

Far from being "just an interesting form of black hole acoustics," as Dr. Steven Allen of the Institute of Astronomy said in a news release, the sound waves might be the key to figuring out how such clusters grow.

Black holes, as decreed by Einstein's general theory of relativity, are objects so dense that neither light nor anything else, including sound, can escape them. Long before any sort of material disappeared into a black hole, theorists have surmised, it would be accelerated to near-light speeds by the hole's gravitational field and heated to millions of degrees as it swirled in a dense doughnut around the gates of doom, sparking X-rays and shock waves and squeezing jets of energy and particles across space.

Such furiously feeding black holes are thought to be the engines responsible for the violent quasars and other phenomena in the cores of galaxies. The new work suggests such black holes can exert influences far beyond their host galaxies.

The biggest clusters, like the one in Perseus, can contain thousands of galaxies and trillions of stars. Paradoxically, most of the ordinary matter in them resides not in stars, but in intergalactic gas that has been heated by the fall into the cluster to temperatures of 50 million degrees or so. The

gas glows brightly enough in X-rays to be seen far across the universe. Cosmologists use this X-ray glow to find clusters in the deep of spacetime.

What keeps the cluster gas hot has long been a puzzle. Without a continuing input of energy, the gas at the centre would radiate its heat, lowering its pressure, and cooler gas would flow in from the outskirts, providing fresh fuel to make stars.

"We should see stars forming in central galaxies," said Dr. Kim Weaver, an astronomer at the Goddard Space Flight Center in Greenbelt, Md. But they do not, he said.

Astronomers, Fabian said, suspected black holes in the central galaxies of clusters might be keeping the cluster gas hot, but the astronomers did not know how.

As the brightest X-ray cluster in the sky, radiating 1,000 times as much energy in X-rays as visible light, Perseus is a logical laboratory for investigating the problem, Fabian explained. A particularly massive black hole is believed to lurk in a galaxy known as NGC 1275, which lies at the centre of the cluster.

Two jets of radio energy shooting out of the galaxy's nucleus have blown two bubbles in the gas in the centre of the cluster. In an X-ray image from the Chandra satellite released three years ago, these bubbles looked like the eye-holes of a giant, eerie, orange skull.

Last year, however, Fabian and his colleagues obtained a new long-exposure

Chandra image of the Perseus cluster, which showed waves moving outward like ripples on a pond from the central bubbles.

The waves, they realized, might be the ideal missing link between the jets and the surrounding gas. Fabian compared the process to a child's blowing bubbles in a glass of water through a straw. In this case, the jets are the straw. The bubbles pushing against the enormous pressure of the gas surrounding them create sound waves moving out through the cluster's gas, pumping energy into it and heating it.

Other astronomers called the results beautiful, but said more study was needed to confirm that the wave process could be supplying the missing energy to the cluster.

"I think it might be," said Dr. Simon White of the Max Planck Institute for Astrophysics in Garching, Germany.

The energies are as prodigious as the symphony is boring. It takes the energy of 100 million supernova explosions to blow a central bubble in the cluster.

If the black hole blows such bubbles continuously and it is this energy that has been keeping Perseus hot, then the black hole in Perseus must have been playing a steady B-flat for a long time, Fabian said.

"It's the longest-lasting symphony we know of," said Dr. Bruce Margon, an astronomer at the Space Telescope Science Institute.

The New York Times